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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,223	02/28/2002	David B. Kramer	8-21-9	6966

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EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

87

Office Action Summary	Application No. 10/085,223	Applicant(s) KRAMER ET AL.	
	Examiner Prenell P. Jones	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2006.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-5 and 15-20 is/are allowed.
- 6) ☐ Claim(s) 6, 7, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) 8, 9 and 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claim 6 and 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashem et al (US PG PUB 2002/0122403 A1) in view of Fan et al (US PAT 6,389,019).

Regarding claims 6, Hashem discloses management and scheduling in a wireless computer communication system, wherein a processor includes a scheduling circuit for scheduling data blocks from a plurality of transmission elements, wherein the scheduling circuit

included a least one time slot table, wherein the scheduling circuit is configured for utilizing at least one time slot table in scheduling data blocks for transmission, the time slot table includes a plurality of locations corresponding to a transmission time slot and being configurable for storing identifiers of at least two of the transmission elements (Abstract, Figs. 7-11, in a wireless computer communication system wherein the architecture includes the communication between a base station and multiple mobile users, a radio resource manager (RRM) known as a scheduler in conjunction with a time slot table is utilized to for scheduling and managing resources and transmission frames/data blocks/packets, time slot table includes multiple locations for time slots identifier and associated identified multiple mobile devices, paragraph 0021, 0022, 0045, 0056, 0085, 0089, 0091, 0092, 0096). However, Hashem is silent on dynamic maintenance of timeslot table such that identifiers of requesting transmission are entered into the table location. In a time-based scheduler architecture for packet data, Fan discloses schedulers that include time-wheels (time slot table), wherein a list stores stream identifiers which are stored in tables and the dynamic servicing of timeslots include utilization of priority levels (Figs. 22 & 23, col. 11, line 19-52, col. 12, line 5-56, col. 16, line 43-59, col. 18, line 15-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to dynamically service timeslot table on demand by utilizing priority levels as with respect to storing stream identifiers as taught by Fan with the teachings of Hashem for the purpose of further managing communication information.

Regarding claim 7, Fan further discloses transmission identifiers linked to another identifier (col. 11, line 35-54)

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zifroni et al (6,603,766) in view of Nguyen et al (US Pat. 5,712,851).

Regarding claims 10 and 11, Ziforni discloses an ATM handling scheduling scheme that schedules time-slot, wherein a plurality of time-slots are stored in a table for scheduling plurality of time-slots (Abstract), table stores channel identifiers in location entries (col. 3, line 30-56, col. 4, line 1-7), and utilize priority level and pointers. However, Ziforni is silent on pointers representing current location in table, head location and tail location. In analogous art, Nguyen discloses scheduling timeslots wherein each timeslot is associated with an identifier and a pointer, whereby pointers represent four locations, such as an empty pointer, head pointer an tail pointer (col. 3, line 1-12, col. 4, line 49, col. 5, line 30-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement a current pointer as taught by Nguyen with the teachings of Ziforni for the purpose of further managing and servicing the scheduling time-slots.

Allowable Subject Matter

2. Claims 1-5 and 15-20 are allowed.

3. Claim 8, 9, 12,13 and14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Although the prior art discloses utilizing scheduling in a communication system, wherein time slots are managed by a time slot table, they fail to teach or suggest with respect to claim 1,

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19 and 20, transmission timeslot storing identifiers of at least two of the transmission elements that have generated colliding requests to transmit respective data blocks in the corresponding timeslot, with respect to claim 8 and 9, in the event of a collision between multiple transmission elements requesting a given one of the time slots an identifier of a first one of the requesting transmission elements is entered into a first portion of the corresponding location in the time slot table, an identifier of a final one of the requesting elements is entered into a second portion of the corresponding location in the time slot table, and an additional one of the requesting elements is linked to at least one of the identifier of the first requesting element and the identifier of the second requesting element, thereby creating a linked list of the multiple requesting elements for the corresponding location in the time slot table, and with respect to claim 12, pointer defining a dynamic waiting room for at least a subset of multiple requesting transmission, with respect to 13, specifying the number of times a set of one or more of the multiple requesting transmission placed in one or more linked list, with respect to 14, assigned time slot = waiting room + requested time slot interval.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

July 21, 2006


CHI PHAM
SUPERVISORY PATENT EXAMINER 7/24/06